

=> fil reg; d que 11

FILE 'REGISTRY' ENTERED AT 12:29:39 ON 26 MAY 2000  
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STRUCTURE FILE UPDATES: 25 MAY 2000 HIGHEST RN 266695-80-1  
DICTIONARY FILE UPDATES: 25 MAY 2000 HIGHEST RN 266695-80-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 11, 2000

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Structure search limits have been increased. See HELP SLIMIT  
for details.

L1 49 SEA FILE=REGISTRY ABB=ON C..C...C.{10-12}C...C..C/SQSP

*claim 18*  
*. = any amine acid*

=> d rn cn 11 1-49; fil capl; s 11

L1 ANSWER 1 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 263557-86-4 REGISTRY  
CN Protein (Drosophila melanogaster gene Mst84Dc) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank AE003672-derived protein GI 7298817

L1 ANSWER 2 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 263489-51-6 REGISTRY  
CN Protein (Drosophila melanogaster gene Mst84Dd) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank AE003672-derived protein GI 7298818

L1 ANSWER 3 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 263489-50-5 REGISTRY  
CN Protein (Drosophila melanogaster gene Mst84Db) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank AE003672-derived protein GI 7298816

L1 ANSWER 4 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 263484-91-9 REGISTRY  
CN Protein (Drosophila melanogaster gene BG:DS02740.19) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank AE003650-derived protein GI 7298298

L1 ANSWER 5 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 263104-93-4 REGISTRY  
CN Protein (Drosophila melanogaster gene CG17666) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank AE003540-derived protein GI 7294541

L1 ANSWER 6 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 261150-58-7 REGISTRY  
CN RNA (avian leukosis-sarcoma virus strain AMV/AMAV minimal packaging signal M.psi.) (9CI) (CA INDEX NAME)

L1 ANSWER 7 OF 49 REGISTRY COPYRIGHT 2000 ACS  
Searched by Barb O'Bryen

RN 260533-83-3 REGISTRY  
CN DNA (human clone DNA59219-1613 protein PRO1359 cDNA plus flanks) (9CI)  
(CA INDEX NAME)  
OTHER NAMES:  
CN 106: PN: WO0012708 FIGURE: 33 claimed protein  
CN DNA (human clone DNA59219-1613 protein UNQ708 cDNA plus flanks)

L1 ANSWER 8 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 260348-99-0 REGISTRY  
CN DNA (Naja naja naja clone pt7ZZ-NT neurotoxin cDNA plus flanks) (9CI) (CA  
INDEX NAME)  
OTHER NAMES:  
CN DNA (Chinese cobra venom clone pt7ZZ-NT short-chain neurotoxin cDNA plus  
flanks)

L1 ANSWER 9 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 255900-75-5 REGISTRY  
CN 77: PN: US6018030 SEQID: 91 unclaimed protein (9CI) (CA INDEX NAME)

L1 ANSWER 10 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 255704-94-0 REGISTRY  
CN DNA (synthetic Aequorea victoria green fluorescent protein) (9CI) (CA  
INDEX NAME)  
OTHER NAMES:  
CN 1: PN: US6020192 SEQID: 3 claimed protein

L1 ANSWER 11 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 250242-56-9 REGISTRY  
CN DNA (Drosophila melanogaster presenilin cDNA plus flanks) (9CI) (CA INDEX  
NAME)  
OTHER NAMES:  
CN 12: PN: US5986054 SEQID: 165 claimed protein

L1 ANSWER 12 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 249906-26-1 REGISTRY  
CN Protein (human bladder fragment) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN PN: WO9954460 SEQID: 357 claimed protein

L1 ANSWER 13 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 249577-46-6 REGISTRY  
CN DNA (Solanum tuberosum clone Ac64 gene Rx protein cDNA) (9CI) (CA INDEX  
NAME)  
OTHER NAMES:  
CN PN: WO9954490 FIGURE: 7A claimed sequence

L1 ANSWER 14 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 249577-44-4 REGISTRY  
CN DNA (Solanum tuberosum clone Ac64 gene Rx protein cDNA) (9CI) (CA INDEX  
NAME)  
OTHER NAMES:  
CN PN: WO9954490 FIGURE: 7A claimed sequence

L1 ANSWER 15 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 249577-41-1 REGISTRY  
CN DNA (Solanum tuberosum clone Acl5 gene Rx protein cDNA) (9CI) (CA INDEX  
NAME)  
OTHER NAMES:  
CN PN: WO9954490 FIGURE: 7A claimed sequence

L1 ANSWER 16 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 249577-36-4 REGISTRY

Searched by Barb O'Bryen

CN DNA (Solanum tuberosum clone 111h1 gene Rx protein cDNA) (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN PN: WO9954490 FIGURE: 7A claimed sequence

L1 ANSWER 17 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 249569-21-9 REGISTRY

CN PN: WO9954490 FIGURE: 7A unclaimed sequence (9CI) (CA INDEX NAME)

L1 ANSWER 18 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 249569-19-5 REGISTRY

CN PN: WO9954490 FIG: 7A unclaimed protein (9CI) (CA INDEX NAME)

L1 ANSWER 19 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 249299-76-1 REGISTRY

CN PN: US5972684 SEQID: 3 unclaimed protein (9CI) (CA INDEX NAME)

L1 ANSWER 20 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 246852-79-9 REGISTRY

CN DNA (Mycobacterium tuberculosis antigen Ra12 fusion protein with Mycobacterium tuberculosis antigen TbH9 fusion protein with Mycobacterium tuberculosis antigen Ra35-specifying) (9CI) (CA INDEX NAME)

L1 ANSWER 21 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 234439-19-1 REGISTRY

CN DNA (human erythropoietin cDNA 5'-flank 224-nucleotide fragment) (9CI) (CA INDEX NAME)

L1 ANSWER 22 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 221220-54-8 REGISTRY

CN DNA (human 397-465-conductin-specifying cDNA) (9CI) (CA INDEX NAME)

L1 ANSWER 23 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 221111-80-4 REGISTRY

CN DNA (human nuclear receptor nNR2 cDNA) (9CI) (CA INDEX NAME)

L1 ANSWER 24 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 220140-39-6 REGISTRY

CN Protein (plasmid pPGH1 transposon Tn5502 open reading frame orf109) (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN GenBank AF052749-derived protein GI 2995632

CN Protein (Pseudomonas putida strain H plasmid pPGH1 transposon Tn5502 open reading frame orf109)

L1 ANSWER 25 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 217945-23-8 REGISTRY

CN DNA (human clone HM74a G protein-coupled receptor cDNA plus flanks) (9CI) (CA INDEX NAME)

L1 ANSWER 26 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 209540-18-1 REGISTRY

CN DNA (gram-negative bacteria strain E-396 .beta.-carotene oxygenase gene crtZE396) (9CI) (CA INDEX NAME)

L1 ANSWER 27 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 209540-17-0 REGISTRY

CN DNA (gram-negative bacteria strain E-396 .beta.-carotene .beta.4-oxygenase gene crtWE396) (9CI) (CA INDEX NAME)

L1 ANSWER 28 OF 49 REGISTRY COPYRIGHT 2000 ACS

RN 201880-53-7 REGISTRY

Searched by Barb O'Bryen

CN Protein (Bacillus subtilis gene yhjQ) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank Y14081-derived protein GI 2226189  
CN GenBank Z99109-derived protein GI 2633396  
CN Protein (Bacillus subtilis strain 168 gene yhjQ)

L1 ANSWER 29 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 197981-22-9 REGISTRY  
CN DNA (mouse strain B10.S H-2Dq gene 5'-regulatory region) (9CI) (CA INDEX NAME)

L1 ANSWER 30 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 188900-56-3 REGISTRY  
CN DNA (Oryza sativa japonica strain Zhonghua-8 Bowman-Birk proteinase inhibitor gene RBBI plus flanks) (9CI) (CA INDEX NAME)

L1 ANSWER 31 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 185226-98-6 REGISTRY  
CN Metallothionein 1 (Potamon potamios) (9CI) (CA INDEX NAME)

L1 ANSWER 32 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 185226-97-5 REGISTRY  
CN Metallothionein 1a (Astacus astacus) (9CI) (CA INDEX NAME)

L1 ANSWER 33 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 171902-73-1 REGISTRY  
CN Metallothionein II (Callinectes sapidus isoform IIb reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 34 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 171902-71-9 REGISTRY  
CN Metallothionein II (Callinectes sapidus isoform IIa reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 35 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 171902-70-8 REGISTRY  
CN Metallothionein I (Callinectes sapidus isoform Ib reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 36 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 171902-68-4 REGISTRY  
CN Metallothionein I (Callinectes sapidus isoform Ia reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 37 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 157184-67-3 REGISTRY  
CN 1-56-Metallothionein I (lobster) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 1-56-Metallothionein 1 (lobster cadmium-binding domain-containing fragment)

L1 ANSWER 38 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 144905-11-3 REGISTRY  
CN Protein (Drosophila melanogaster clone .lambda.Dm2.2 gene Mst84Dd reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 39 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 144905-09-9 REGISTRY  
CN Protein (Drosophila melanogaster clone .lambda.Dm2.2 gene Mst84Dc reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 40 OF 49 REGISTRY COPYRIGHT 2000 ACS  
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RN 144905-07-7 REGISTRY  
CN Protein (Drosophila melanogaster clone .lambda.Dm2.2 gene Mst84Db reduced)  
(9CI) (CA INDEX NAME)

L1 ANSWER 41 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 114265-51-9 REGISTRY  
CN Protein (Drosophila melanogaster gene mst(3)gl-9 reduced) (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN GenBank AE003702-derived protein GI 7299816  
CN Protein (Drosophila melanogaster gene Mst87F)

L1 ANSWER 42 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 104950-67-6 REGISTRY  
CN Protein (silkworm gene Hc-B.7 reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 43 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 104950-60-9 REGISTRY  
CN Protein (silkworm gene Hc-B.9 precursor reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 44 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 104950-59-6 REGISTRY  
CN Protein (silkworm gene Hc-B.7 precursor reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 45 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 104950-55-2 REGISTRY  
CN Protein (silkworm gene Hc-A.15 reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 46 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 104950-53-0 REGISTRY  
CN Protein (silkworm gene Hc-A.13 reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 47 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 104950-50-7 REGISTRY  
CN Protein (silkworm gene Hc-A.8 reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 48 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 81458-84-6 REGISTRY  
CN Metallothionein II (Scylla serrata protein moiety reduced) (9CI) (CA INDEX NAME)

L1 ANSWER 49 OF 49 REGISTRY COPYRIGHT 2000 ACS  
RN 78213-76-0 REGISTRY  
CN Metallothionein I (Scylla serrata protein moiety reduced) (9CI) (CA INDEX NAME)

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FILE COVERS 1967 - 26 May 2000 VOL 132 ISS 22  
FILE LAST UPDATED: 25 May 2000 (20000525/ED)

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L2 30 L1

=> d ibib ab hitrn l2 1-30; fil hom

L2 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:246848 CAPLUS

DOCUMENT NUMBER: 132:289494

TITLE: The genome sequence of *Drosophila melanogaster*

AUTHOR(S): Adams, Mark D.; Celniker, Susan E.; Holt, Robert A.; Evans, Cheryl A.; Gocayne, Jeannine D.; Amanatides, Peter G.; Scherer, Steven E.; Li, Peter W.; Hoskins, Roger A.; Galle, Richard F.; George, Reed A.; Lewis, Suzanna E.; Richards, Stephen; Ashburner, Michael; Henderson, Scott N.; Sutton, Granger G.; Wortman, Jennifer R.; Yandell, Mark D.; Zhang, Qing; Chen, Lin X.; Brandon, Rhonda C.; Rogers, Yu-Hui C.; Blazej, Robert G.; Champe, Mark; Pfeiffer, Barret D.; Wan, Kenneth H.; Doyle, Clare; Baxter, Evan G.; Helt, Gregg; Nelson, Catherine R.; Miklos, George L. Gabor; Abril, Josep F.; Agbayani, Anna; An, Hui-Jin; Andrews-Pfannkoch, Cynthia; Baldwin, Danita; Ballew, Richard M.; Basu, Anand; Baxendale, James; Bayraktaroglu, Leyla; Beasley, Ellen M.; Beeson, Karen Y.; Benos, P. V.; Berman, Benjamin P.; Bhandari, Deepali; Bolshakov, Slava; Borkova, Dana; Botchan, Michael R.; Bouck, John; Brokstein, Peter; Brottier, Phillipe; Burtis, Kenneth C.; et al.

CORPORATE SOURCE: Celera Genomics, Rockville, MD, 20850, USA

SOURCE: Science (Washington, D. C.) (2000), 287(5461), 2185-2195

CODEN: SCIEAS; ISSN: 0036-8075

PUBLISHER: American Association for the Advancement of Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The fly *Drosophila melanogaster* is one of the most intensively studied organisms in biol. and serves as a model system for the investigation of many developmental and cellular processes common to higher eukaryotes, including humans. The nucleotide sequence was detd. of nearly all of the .apprx.120-megabase euchromatic portion of the *Drosophila* genome using a whole-genome shotgun sequencing strategy supported by extensive clone-based sequence and a high-quality bacterial artificial chromosome phys. map. Efforts are under way to close the remaining gaps; however, the sequence is of sufficient accuracy and contiguity to be declared substantially complete and to support an initial anal. of genome structure and preliminary gene annotation and interpretation. The genome encodes .apprx.13,600 genes, somewhat fewer than the smaller *Caenorhabditis elegans* genome, but with comparable functional diversity. Access to supporting information on each gene is available through FlyBast at  
Searched by Barb O'Bryen

<http://flybase.bio.indiana.edu> and through Celera at [www.celera.com](http://www.celera.com); the sequences are deposited in GenBank with Accession Nos. AE002566-AE003403. [This abstr. record is one of 4 records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.]

IT **114265-51-9**, Protein (*Drosophila melanogaster* gene *mst(3)gl-9* reduced) **263484-91-9 263489-50-5 263489-51-6 263557-86-4**  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (amino acid sequence; genome sequence of *Drosophila melanogaster*)

L2 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:246831 CAPLUS

DOCUMENT NUMBER: 132:275066

TITLE: The genome sequence of *Drosophila melanogaster*

AUTHOR(S): Adams, Mark D.; Celniker, Susan E.; Holt, Robert A.; Evans, Cheryl A.; Gocayne, Jeannine D.; Amanatides, Peter G.; Scherer, Steven E.; Li, Peter W.; Hoskins, Roger A.; Galle, Richard F.; George, Reed A.; Lewis, Suzanna E.; Richards, Stephen; Ashburner, Michael; Henderson, Scott N.; Sutton, Granger G.; Wortman, Jennifer R.; Yandell, Mark D.; Zhang, Qing; Chen, Lin X.; Brandon, Rhonda C.; Rogers, Yu-Hui C.; Blazej, Robert G.; Champe, Mark; Pfeiffer, Barret D.; Wan, Kenneth H.; Doyle, Clare; Baxter, Evan G.; Helt, Gregg; Nelson, Catherine R.; Miklos, George L. Gabor; Abril, Josep F.; Agbayani, Anna; An, Hui-Jin; Andrews-Pfannkoch, Cynthia; Baldwin, Danita; Ballew, Richard M.; Basu, Anand; Baxendale, James; Bayraktaroglu, Leyla; Beasley, Ellen M.; Beeson, Karen Y.; Benos, P. V.; Berman, Benjamin P.; Bhandari, Deepali; Bolshakov, Slava; Borkova, Dana; Botchan, Michael R.; Bouck, John; Brokstein, Peter; Brottier, Phillippe; Burtis, Kenneth C.; et al.

CORPORATE SOURCE: Celera Genomics, Rockville, MD, 20850, USA

SOURCE: Science (Washington, D. C.) (2000), 287(5461), 2185-2195

CODEN: SCIEAS; ISSN: 0036-8075

PUBLISHER: American Association for the Advancement of Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The fly *Drosophila melanogaster* is one of the most intensively studied organisms in biol. and serves as a model system for the investigation of many developmental and cellular processes common to higher eukaryotes, including humans. The nucleotide sequence was detd. of nearly all of the .apprx.120-megabase euchromatic portion of the *Drosophila* genome using a whole-genome shotgun sequencing strategy supported by extensive clone-based sequence and a high-quality bacterial artificial chromosome phys. map. Efforts are under way to close the remaining gaps; however, the sequence is of sufficient accuracy and contiguity to be declared substantially complete and to support an initial anal. of genome structure and preliminary gene annotation and interpretation. The genome encodes .apprx.13,600 genes, somewhat fewer than the smaller *Caenorhabditis elegans* genome, but with comparable functional diversity. Access to supporting information on each gene is available through FlyBase at <http://flybase.bio.indiana.edu> and through Celera at [www.celera.com](http://www.celera.com); the sequences are deposited in GenBank with Accession Nos. AE002566-AE003403. [This abstr. record is one of 4 records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.]

IT **263104-93-4**

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RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
(Biological study)  
(amino acid sequence; genome sequence of *Drosophila melanogaster*)

L2 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:164617 CAPLUS

DOCUMENT NUMBER: 132:218003

TITLE: Nucleic acids encoding human membrane-bound proteins  
and receptors

INVENTOR(S): Baker, Kevin; Goddard, Audrey; Gurney, Austin L.;  
Smith, Victoria; Watanabe, Colin K.; Wood, William I.

PATENT ASSIGNEE(S): Genentech, Inc., USA

SOURCE: PCT Int. Appl., 773 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012708	A2	20000309	WO 1999-US20111	19990901

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,  
CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,  
IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,  
MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,  
TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,  
KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,  
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,  
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 1998-PV98716	19980901
US 1998-PV98749	19980901
US 1998-PV98750	19980901
US 1998-PV98803	19980902
US 1998-PV98821	19980902
US 1998-PV98843	19980902
US 1998-PV99536	19980909
US 1998-PV99596	19980909
US 1998-PV99598	19980909
US 1998-PV99602	19980909
US 1998-PV99642	19980909
US 1998-PV99741	19980910
US 1998-PV99754	19980910
US 1998-PV99763	19980910
US 1998-PV99792	19980910
US 1998-PV99808	19980910
US 1998-PV99812	19980910
US 1998-PV99815	19980910
US 1998-PV99816	19980910
US 1998-PV100385	19980915

AB Membrane-bound proteins and receptor mols. have various industrial applications, including as pharmaceutical and diagnostic agents. Many efforts are focused on the screening of mammalian recombinant DNA libraries to identify the coding sequences for novel receptor or membrane-bound proteins. The present invention is directed to 123 novel polypeptides and to nucleic acid mols. encoding those polypeptides identified in human cDNA libraries by (1) extracellular domain homol. screening, (2) amylase screening, or (3) signal algorithm anal. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide mols. comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies

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which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

IT **260533-83-3P**

RL: BOC (Biological occurrence); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
(nucleotide sequence; nucleic acids encoding human membrane-bound proteins and receptors)

L2 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:78873 CAPLUS  
DOCUMENT NUMBER: 132:133209  
TITLE: Humanized green fluorescent protein genes with preferred codon usage for expression in mammalian cells  
INVENTOR(S): Muzyczka, Nicholas; Zolotukhin, Sergei; Hauswirth, William  
PATENT ASSIGNEE(S): University of Florida, USA  
SOURCE: U.S., 70 pp., Cont.-in-part of U.S. Ser. No. 588,201.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6020192	A	20000201	US 1997-893327	19970716
US 5874304	A	19990223	US 1996-588201	19960118
CA 2243088	AA	19970724	CA 1997-2243088	19970117
US 5968750	A	19991019	US 1998-169605	19981009
			US 1996-588201	19960118

PRIORITY APPLN. INFO.:

AB Disclosed are synthetic and "humanized" versions of green fluorescent protein (GFP) genes adapted for high level expression in mammalian cells, esp. those of human origin. Base substitutions are made in various codons in order to change the codon usage to one more appropriate for expression in mammalian cells. Also provided are variant or mutant GFP gene sequences, and a sequence of GFP gene fused with a nuclear targeting sequence, SV40 large T-antigen nuclear localization signal. Recombinant adeno-assocd. virus (AAV) vectors carrying such humanized genes are also disclosed. In addn., various methods for using the efficient expression of humanized GFP in mammalian cells and in animals are described.

IT **255704-94-0**

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)  
(nucleotide sequence; humanized green fluorescent protein genes with preferred codon usage for expression in mammalian cells)

REFERENCE COUNT: 11  
REFERENCE(S): (1) Anon; WO 9726333 1997 CAPLUS  
(2) Carey; J Cell Biol 1996, V133(5), P985 CAPLUS  
(3) Cubitt; TIBS 1995, V20, P448 CAPLUS  
(5) Delagrave; Bio/Technology 1995, V13, P151 CAPLUS  
(6) Goodman; Blood 1994, V84(5), P1492 CAPLUS  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:67509 CAPLUS  
DOCUMENT NUMBER: 132:119024  
TITLE: Peptides comprising repetitive units of amino acids and DNA sequences encoding the same for production of fibers for use in prosthetics  
INVENTOR(S): Ferrari, Franco A.; Richardson, Charles; Chambers,  
Searched by Barb O'Bryen

James; Causey, Stuart; Pollock, Thomas J.; Cappello, Joseph; Crissman, John W.  
 PATENT ASSIGNEE(S): Protein Polymer Technologies, Inc., USA  
 SOURCE: U.S., 102 pp., Cont.-in-part of U.S. 5,641,648.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 16  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6018030	A	20000125	US 1995-482085	19950607
US 5243038	A	19930907	US 1987-114618	19871029
JP 10014586	A2	19980120	JP 1997-63870	19871029
JP 2000135092	A2	20000516	JP 1999-100595	19871029
US 5641648	A	19970624	US 1993-175155	19931229
PRIORITY APPLN. INFO.:			US 1986-927258	19861104
			US 1987-114618	19871029
			US 1993-53049	19930422
			US 1993-175155	19931229
			JP 1988-500640	19871029
			JP 1997-63870	19871029
			US 1988-269429	19881109
			US 1990-609716	19901106

AB Polypeptides comprising repetitive units of amino acids, as well as synthetic genes encoding the subject polypeptides are provided. The subject polypeptides are characterized by comprising repetitive units of amino acids, where the repetitive units are present in naturally occurring proteins, particularly naturally occurring structural proteins. The subject polypeptides find use in a variety of applications, such as structural components of prosthetic devices, synthetic fibers, and the like.

# IT 255900-75-5

RL: PRP (Properties)

(unclaimed protein sequence; peptides comprising repetitive units of amino acids and DNA sequences encoding the same for prodn. of fibers for use in prosthetics)

L2 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:4875 CAPLUS

DOCUMENT NUMBER: 132:218457

TITLE: Secondary structure analysis of a minimal avian leukosis-sarcoma virus packaging signal

AUTHOR(S): Banks, Jennifer D.; Linial, Maxine L.

CORPORATE SOURCE: Division of Basic Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA, 98109, USA

SOURCE: J. Virol. (2000), 74(1), 456-464

CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors previously identified a 160-nucleotide packaging signal, M.psi., from the 5' end of the Rous sarcoma virus genome. In this study, the authors det. the secondary structure of M.psi. by using phylogenetic anal. with computer modeling and heterologous packaging assays of point mutants. The results of the in vivo studies are in good agreement with the computer model. Addnl., the packaging studies indicate several structures which are important for efficient packaging, including a single-stranded bulge contg. the initiation codon for the short open reading frame, uORF3, as well as adjacent stem structures. Finally, the authors show that the L3 stem-loop at the 3' end of M.psi. is dispensable

Searched by Barb O'Bryen

for packaging, thus identifying an 82-nucleotide minimal packaging signal, .mu..psi., composed of the O3 stem-loop.

IT 261150-58-7

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(ribonucleotide sequence; secondary structure anal. of minimal avian leukosis-sarcoma virus packaging signal)

REFERENCE COUNT: 25

REFERENCE(S):

- (1) Aronoff, R; J Virol 1991, V65, P71 CAPLUS
- (2) Banks, J; J Virol 1998, V72, P6190 CAPLUS
- (3) Banks, J; J Virol 1999, V73, P8926 CAPLUS
- (4) Banks, J; Semin Virol 1997, V8, P194 CAPLUS
- (5) Berkowitz, R; Curr Top Microbiol Immunol 1996, V214, P177 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:733863 CAPLUS

DOCUMENT NUMBER: 131:347538

TITLE: Genetic sequences and proteins related to Alzheimer's disease

INVENTOR(S): St. George-Hyslop, Peter H.; Rommens, Johanna M.; Fraser, Paul E.

PATENT ASSIGNEE(S): The Hospital for Sick Children, HSC Research and Development Limited Partnership, Can.; The Governing Council of the University of Toronto

SOURCE: U.S., 131 pp., Cont.-in-part of U.S. Ser. No. 509,359. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5986054	A	19991116	US 1996-592541	19960126
CA 2219214	AA	19961031	CA 1996-2219214	19960429
CN 1188508	A	19980722	CN 1996-194902	19960429
WO 9727296	A1	19970731	WO 1997-CA51	19970127
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9712992	A1	19970820	AU 1997-12992	19970127
EP 876483	A1	19981111	EP 1997-900531	19970127
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, LT, LV, FI, RO				
US 6020143	A	20000201	US 1997-888077	19970703
US 5840540	A	19981124	US 1997-967101	19971110
PRIORITY APPLN. INFO.:				
			US 1995-431048	19950428
			US 1995-496841	19950628
			US 1995-509359	19950731
			US 1996-592541	19960126
			US 1996-21672	19960705
			US 1996-21673	19960705
			US 1996-21700	19960712
			US 1996-29895	19961108
			US 1997-34590	19970102

Searched by Barb O'Bryen

WO 1997-CA51 19970127

AB The present invention describes the identification, isolation and cloning of two human presenilin genes, PS-1 and PS-2, mutations in which lead to familial Alzheimer's disease. The Alzheimer's related membrane protein (ARMP) gene (or presenilin I (PSI)) gene was isolated, cloned and sequenced from within the AD3 region on chromosome 14q4.3. In addn., direct sequencing of RT-PCR products spanning this 3.0 kb cDNA transcript isolated from affected members of at least 8 large pedigrees linked to chromosome 14, has led to the discovery of missense mutations in each of these different pedigrees. These mutations are absent in normal chromosomes. Also identified are presenilin homolog genes in mice, *Caenorhabditis elegans* (SEL-12) and *Drosophila melanogaster* (DmPS). Transcripts and products of these genes are useful in detecting and diagnosing Alzheimer's disease, developing therapeutics for treatment of Alzheimer's disease, as well as the isolation and manuf. of the protein, and the constructions of transgenic animals expressing the mutant genes.

IT 250242-56-9P

RL: ADV (Adverse effect, including toxicity); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(nucleotide sequence; genetic sequences and proteins related to Alzheimer's disease)

REFERENCE COUNT: 34

REFERENCE (S): (1) Anon; WO 91/19810 1991 CAPLUS  
(5) Anon; WO 94/00569 1994 CAPLUS  
(6) Anon; WO 94/10569 1994 CAPLUS  
(7) Anon; WO 94/23049 1994 CAPLUS  
(8) Anon; WO 97/03086 1997 CAPLUS  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:691234 CAPLUS

DOCUMENT NUMBER: 131:333021

TITLE: Solanum tuberosum-derived viral resistance gene which induces cell death and extreme and hypervariable resistance

INVENTOR(S): Bendahmane, Abdelhafid; Baulcombe, David Charles; Kanyuka, Konstantin Valerievich

PATENT ASSIGNEE(S): Plant Bioscience Limited, UK

SOURCE: PCT Int. Appl., 124 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9954490	A2	19991028	WO 1999-GB1182	19990416
WO 9954490	A3	20000106		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9935296	A1	19991108	AU 1999-35296	19990416
PRIORITY APPLN. INFO.:			GB 1998-8083	19980416
			WO 1999-GB1182	19990416

Searched by Barb O'Bryen

AB Disclosed are nucleic acids encoding polypeptides which are capable of conferring extreme resistance (ER) against, and being triggered by, plant pathogens such as viruses (e.g. PVX and related isolates). Preferred nucleic acids encode the Rx polynucleotide from *Solanum tuberosum*, or a variety of homologues (naturally occurring or derivs.) thereof, such as 11lh1; 22lh2; Ac15; Ac64; K39.hom. Rx is a resistance gene from potato conferring extreme resistance against potato virus X. In addn. it gives resistance to Potex and Carlaviruses. It is able to induce cell death in some cells of leaves and thus lead to systemic acquired resistance against different pathogens. Rx genes are widely applicable in breeding programs because Rx is highly durable with only one natural isolate able to overcome the resistance and the resistance is extreme. Rx-mediated resistance is active in protoplasts where it suppresses viral replication or promotes degradn. of viral RNA. Particular methods of activating resistance by using combinations of resistance gene and elicitor are also disclosed, which in certain cases lead to a hypersensitive response. This hypersensitive response is a secondary resistance response involving decoupled continuous activation of Rx by the 35S viral coat protein. Further aspects of the invention include specific primers, vectors, host cells, polypeptides, antibodies and transgenic plants, plus methods of producing and employing these, in particular for influencing a resistance trait in a plant.

IT 249577-36-4 249577-41-1 249577-44-4

249577-46-6

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(nucleotide sequence; *solanum tuberosum*-derived viral resistance gene which induces cell death and extreme and hypervariable resistance)

IT 249569-19-5, PN: WO9954490 FIG: 7A unclaimed protein

RL: PRP (Properties)

(unclaimed protein sequence; *solanum tuberosum*-derived viral resistance gene which induces cell death and extreme and hypervariable resistance)

IT 249569-21-9

RL: PRP (Properties)

(unclaimed sequence; *solanum tuberosum*-derived viral resistance gene which induces cell death and extreme and hypervariable resistance)

L2 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:691206 CAPLUS

DOCUMENT NUMBER: 131:333014

TITLE: Human bladder nucleic acid sequences and proteins and their use in drug screening and bladder tumor inhibition

INVENTOR(S): Specht, Thomas; Hinzmann, Bernd; Schmitt, Armin;

Pilarsky, Christian; Dahl, Edgar; Rosenthal, Andre

PATENT ASSIGNEE(S): Metagen Gesellschaft fur Genomforschung mbH, Germany

SOURCE: PCT Int. Appl., 355 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9954460	A2	19991028	WO 1999-DE1163	19990415
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19818620	A1	19991028	DE 1998-19818620	19980421
PRIORITY APPLN. INFO.:			DE 1998-19818620	19980421

Searched by Barb O'Bryen

AB The invention relates to human nucleic acid sequences (mRNA, cDNA, genomic sequences) of normal bladder tissue, coding for proteins or parts thereof, in addn. to the use thereof. The invention also relates to the proteins that can be obtained according to said sequences and to the use thereof. Thus, through computer anal. of EST databanks and electronic Northern blotting, cDNAs characteristic of human bladder tissue were identified.

IT **249906-26-1P**, Protein (human bladder fragment)  
 RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (amino acid sequence; human bladder nucleic acid sequences and proteins and their use in drug screening and bladder tumor inhibition)

L2 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:686627 CAPLUS  
 DOCUMENT NUMBER: 131:319671  
 TITLE: Cloning, expression, sequence and possible therapeutic use of human carbonic anhydrase VIII  
 INVENTOR(S): Bandman, Olga; Yue, Henry; Greenwald, Sara R.; Corley, Neil C.  
 PATENT ASSIGNEE(S): Incyte Pharmaceuticals, Inc., USA  
 SOURCE: U.S., 38 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5972684	A	19991026	US 1997-977767	19971125

AB The invention provides a human carbonic anhydrase isoform (CAVIII) and polynucleotides which identify and encode CAVIII. Nucleic acids encoding CAVIII were first identified in Incyte clone 2059155 from a cDNA library using a computer search for amino acid sequence alignments; a consensus sequence was derived from overlapping and/or extended nucleic acid sequences. Amino acid and cDNA sequences for CAVIII are reported. CAVIII is 328 amino acids in length. Expression of CAVIII has been shown and the enzyme activity has been demonstrated. Naturally occurring CAVIII has been purified using specific antibodies. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders assocd. with expression of CAVIII.

IT **249299-76-1**, PN: US5972684 SEQID: 3 unclaimed protein  
 RL: PRP (Properties)  
 (unclaimed protein sequence; cloning, expression, sequence and possible therapeutic use of human carbonic anhydrase VIII)

REFERENCE COUNT: 36  
 REFERENCE (S): (6) Bergenhem, N; Int J Pept Protein Res 1989, V33, P140 CAPLUS  
 (7) Boren, K; Protein Sci 1996, V5, P2479 CAPLUS  
 (8) Briganti, F; Biochemistry 1997, V36, P10384 CAPLUS  
 (11) Centofanti, M; Pharmacol Res 1997, V35, P481 CAPLUS  
 (13) Cowen, M; J Clin Psychopharm 1997, V17, P190 CAPLUS  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:685402 CAPLUS  
 DOCUMENT NUMBER: 132:204250  
 Searched by Barb O'Bryen

TITLE: Cloning and expression of a short-chain neurotoxin from Chinese cobra in Escherichia coli  
 AUTHOR(S): Cai, Qin; He, Zhi-Yong; Gong, Yi; Yang, Sheng-Li  
 CORPORATE SOURCE: Shanghai Research Center of Biotechnology, The Chinese Academy of Sciences, Shanghai, 200233, Peop. Rep. China  
 SOURCE: Yichuan (1999), 21(5), 1-4  
 CODEN: ICHUDW; ISSN: 0253-9772  
 PUBLISHER: Yichuan Zazhi Bianjibu  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB A novel short-chain neurotoxin cDNA was cloned from Chinese cobra venom by RT-PCR. The cDNA was cloned into the pGEM-T vector and sequenced. It has a ORF encoding 83 amino acid residues and a 21 residues signal peptide. This neurotoxin gene of Chinese cobra was highly homogeneous to the short-chain neurotoxin gene of similar species reported in GenBank. Among the genes of neurotoxin from different species, the signal peptides were very conserved. The cDNA encoding the mature peptide was amplified by PCR and was cloned into pT7Z2 vector. The recombinant vector was transformed into Escherichia coli BL2(DE3). The E. coli highly expressed the fusion protein whose mol. wt. is 23kDa, after induced by 0.1 mol/L IPTG. The expressed protein was accumulated up to more than 25% of total bacterial protein.

IT 260348-99-0  
 RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)  
 (nucleotide sequence; cloning, cDNA sequence and recombinant expression of a short-chain neurotoxin from Chinese cobra)

L2 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2000 ACS  
 ACCESSION NUMBER: 1999:659510 CAPLUS  
 DOCUMENT NUMBER: 131:296204  
 TITLE: Fusion proteins of Mycobacterium tuberculosis antigens containing domains from more than one Mycobacterium protein and their uses  
 INVENTOR(S): Skeiky, Yasir A. W.; Alderson, Mark; Campos-Neto, Antonio  
 PATENT ASSIGNEE(S): Corixa Corporation, USA  
 SOURCE: PCT Int. Appl., 83 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9951748	A2	19991014	WO 1999-US7717	19990407
WO 2000051748	A3	20000203		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9934817	A1	19991025	AU 1999-34817	19990407
PRIORITY APPLN. INFO.:			US 1998-56556	19980407
			US 1998-223040	19981230
			WO 1999-US7717	19990407

Searched by Barb O'Bryen

AB Fusion proteins contg. antigenic regions from two or more proteins (up to five) of Mycobacterium tuberculosis that can be used in the diagnosis, treatment and prevention of tuberculosis infection are described. These fusion proteins retain the antigenicity of the originals. A series of twelve fusion proteins contg. combinations of peptides from M. tuberculosis antigens were constructed by std. methods and manufd. as inclusion bodies in Escherichia coli. The fusion proteins stimulated T cell proliferation in PPD+ patients with proliferation patterns similar to those of the individual components. Immunization of mice with the fusion proteins induced strong interferon .gamma. and interleukin 4 responses with the strength of the responses depending upon the adjuvant used.

IT 246852-79-9

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nucleotide sequence; fusion proteins of Mycobacterium tuberculosis antigens contg. domains from more than one Mycobacterium protein and their uses)

L2 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:495315 CAPLUS

DOCUMENT NUMBER: 131:139951

TITLE: Erythropoietin mutants with altered biological activity

INVENTOR(S): Sytkowski, Arthur J.; Grodberg, Jennifer

PATENT ASSIGNEE(S): Beth Israel Deaconess Medical Center, USA

SOURCE: PCT Int. Appl., 106 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9938890	A1	19990805	WO 1999-US2258	19990202
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9925766	A1	19990816	AU 1999-25766	19990202
PRIORITY APPLN. INFO.:			US 1998-17631	19980203
			WO 1999-US2258	19990202

AB The invention relates to DNA encoding modified, secretable erythropoietin proteins whose ability to regulate the growth and differentiation of red blood cell progenitors are different from the wild-type recombinant erythropoietin. The invention also relates to methods of modifying or altering the regulating activity of the secretable erythropoietin proteins and the use of the modified secretable erythropoietin proteins, for example, in in vivo therapeutics. Thus, oligonucleotide-directed mutagenesis was used to create mutant erythropoietin which resulted in substitution of amino acids at positions 100-109 within Domain 1. Arginine-103 was crit. for erythropoietin's biol. activity, and serine-104, leucine-105, and leucine-108 appear to play a role, as indicated by the decreased biol. activity of these mutants. Some of the mutant erythropoietin proteins demonstrated increased heat stability relative to the wild-type erythropoietin protein. Alterations in the noncoding regions of the erythropoietin gene can affect mRNA stability,

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rates of translation, expression from host cells, protein processing, export from rough endoplasmic reticulum, extend and pattern of glycosylation, secretion dynamics and rate of export from the cell. The free energy for mRNA secondary structure for nucleotides 401-624 in the 5'-untranslated region of the erythropoietin gene is predicted to be -161.0 kcal/mol, and deletions in this area decrease the free energy values; similar changes in free energy are obsd for nucleotides 2773-2972 in the 3'-untranslated region. Erythropoietin mutants with modified biol. activities may be of use to treat anemia.

IT **234439-19-1**

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)  
(mutants in 5'- and 3'-UTR regions; erythropoietin mutants with altered biol. activity)

L2 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:189197 CAPLUS

DOCUMENT NUMBER: 130:232471

TITLE: The protein conductin and its application for diagnosis and gene therapy of colon cancer

INVENTOR(S): Behrens, Jurgen; Birchmeier, Walter

PATENT ASSIGNEE(S): Max-Delbrück-Centrum für Molekulare Medizin, Germany

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911780	A2	19990311	WO 1998-DE2621	19980901
WO 9911780	A3	19990527		
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19840875	A1	19990512	DE 1998-19840875	19980901

PRIORITY APPLN. INFO.: DE 1997-19738205 19970902

AB The invention concerns the novel protein conductin that is able to regulate the .beta.-catenin function and interacts with the tumor suppressor adenomatous polyposis coli (APC); and its application in the gene therapy of colon cancer. The 840 amino acid contg. protein contains domains with various activities: 78-200 is the RGS (Regulator of G-Protein Signalling) binding sequence; 343-396 is the GSK 3.beta. (glycogen synthase kinase 3.beta.) binding sequence; 397-465 is the .beta.-catenin binding sequence; 783-833 is the Dishevelled homol. region. Mutations, variants and fragments of conductin with the corresponding coding genes and mRNA sequences are also included. Antibodies and nucleic acid probes for the detection of conductin are part of the diagnosis tools. For therapeutic purposes a vector contg. the conductin gene is constructed; substances that activate and reactivate conductin in the body are co-administered, e.g. a substance that activates the conductin promoter or stabilizes mRNA. The effect of conductin was proved using SW480 cells with APC mutation and thus increased .beta.-catenin level. Introduction of conductin resulted in the decrease of .beta.-catenin to the same concn. as in non APC mutated SW480 cells. In an expt. with Xenopus embryos it was shown that conductin inhibits the Wnt/Wingless signaling pathway via its interaction with .beta.-catenin.

IT **221220-54-8**

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(nucleotide sequence; protein conductin and application for diagnosis  
Searched by Barb O'Bryen

and gene therapy of colon cancer)

L2 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2000 ACS  
 ACCESSION NUMBER: 1999:166633 CAPLUS  
 DOCUMENT NUMBER: 130:219154  
 TITLE: DNA molecules encoding human nuclear receptor proteins  
 INVENTOR(S): Chen, Fang  
 PATENT ASSIGNEE(S): Merck & Co., Inc., USA  
 SOURCE: PCT Int. Appl., 82 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9910367	A1	19990304	WO 1998-US17826	19980827
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6054295	A	20000425	US 1998-141000	19980826
PRIORITY APPLN. INFO.:			US 1997-PV57090	19970827
			US 1997-PV62902	19971021
			US 1998-PV78633	19980319

AB The present invention discloses the isolation and characterization of cDNA mols. encoding two human nuclear receptor proteins, designated nNR1, nNR2 and/or nNR2-1. The nNR1 and nNR2 proteins share 95 and 77% homol. at the amino acid level to hERR2. The gene encoding nNR1 is located on locus 14q24.3-14q31, which is the Alzheimer disease gene 3 (AD3) locus. An alternative form of cDNA encoding nNR2 contains a 2-nucleotide insertion at nucleotide 1352, resulting in shifted reading frame and introduction of a TGA termination codon 33 nucleotides from the insertion site and thus a C-terminal truncated nNR2, nNR2-1. Also within the scope of the disclosure are recombinant vectors, recombinant host cells, methods of screening for modulators of nNR1, nNR2 and/or nNR2-1 activity, and prodn. of antibodies against nNR1, nNR2 and/or nNR2-1, or epitopes thereof.

IT **221111-80-4**, DNA (human nuclear receptor nNR2 cDNA)  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (nucleotide sequence; DNA mols. encoding human nuclear receptor proteins)

REFERENCE COUNT: 3  
 REFERENCE(S): (1) Giguere, V; Nature 1998, V331(6151), P91  
 (2) Pettersson, K; Mechanisms of Development 1996, V54(2), P211 CAPLUS  
 (3) The Salk Institute For Biological Studies; WO 8803168 A1 1988 CAPLUS

L2 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2000 ACS  
 ACCESSION NUMBER: 1999:8025 CAPLUS  
 DOCUMENT NUMBER: 130:62689  
 TITLE: sequence and therapeutic applications for human Hm74a receptor isoform  
 INVENTOR(S): Elshourbagy, Nabil A.; Li, Xiaotong; Bergsma, Derk J.; Mooney, Jeffrey L.; Guerrera, Stephanie F.  
 PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA  
 SOURCE: PCT Int. Appl., 40 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

Searched by Barb O'Bryen

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9856820	A1	19981217	WO 1998-US12386	19980612
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9879660	A1	19981230	AU 1998-79660	19980612
PRIORITY APPLN. INFO.:			US 1997-49480	19970612
			WO 1998-US12386	19980612
AB	HM74A polypeptides and polynucleotides and methods for producing such polypeptides by recombinant techniques are disclosed. Also disclosed are methods for utilizing HM74A polypeptides and polynucleotides in therapy, and diagnostic assays for such. Therapeutic applications include treatment for bacterial or protozoan or fungal or viral infections. Specifically HIV-1, HIV-2, pain, cancers, diabetes, obesity, anorexia, bulimia, asthma, Parkinson's disease, acute heart failure, hypotension, hypertension, urinary retention, osteoporosis, angina pectoris, myocardial infarction, stroke, ulcers, asthma, allergies, benign prostatic hypertrophy, migraine, vomiting, psychotic and neurol. mental disorders, anxiety, schizophrenia, manic depression, depression, delirium, dementia, severe mental retardation, dyskinesias, Huntingtons disease and Gilles dela Tourett's syndrome are treatable with this peptide.			
IT	<b>217945-23-8</b> RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nucleotide sequence; sequence and therapeutic applications for human Hm74a receptor isoform)			
REFERENCE COUNT:	2			
REFERENCE(S):	(1) Devlin; Science 1990, V249, P404 CAPLUS (2) Nomura; International Immunology 1993, V5(10), P1239 MEDLINE			
L2	ANSWER 17 OF 30 CAPLUS COPYRIGHT 2000 ACS			
ACCESSION NUMBER:	1998:796616 CAPLUS			
DOCUMENT NUMBER:	130:149395			
TITLE:	The transposable elements resident on the plasmids of Pseudomonas putida strain H, Tn5501 and Tn5502, are cryptic transposons of the Tn3 family			
AUTHOR(S):	Lauf, U.; Muller, C.; Herrmann, H.			
CORPORATE SOURCE:	Institut fur Genetik und Biochemie, Ernst-Moritz-Arndt-Universitat, Greifswald, D-17487, Germany			
SOURCE:	Mol. Gen. Genet. (1998), 259(6), 674-678 CODEN: MGGEAE; ISSN: 0026-8925			
PUBLISHER:	Springer-Verlag			
DOCUMENT TYPE:	Journal			
LANGUAGE:	English			
AB	Genes for (methyl)phenol degrdn. in Pseudomonas putida strain H (phl genes) are located on the plasmid pPGH1. Adjacent to the phl catabolic operon, a cryptic transposon, Tn5501, of the Tn3 family (class II transposons) was identified. The genes encoding the resolvase and the transposase are transcribed in the same direction, as is common for the Tn501 subfamily. The enzymes encoded by Tn5501, however, show only the overall homol. characteristic for resolvases/integrases and transposases of Tn3-type transposons. Therefore, it is likely that Tn5501 is not a Searched by Barb O'Bryen			

member of one of the previously defined subfamilies. Inactivation of the conditional lethal *sacB* gene was used to detect transposition of Tn5501. While screening for transposition events, another transposon was found integrated into *sacB* in one of the sucrose-resistant survivors. This element, Tn5502, is a composite transposon consisting of Tn5501 and an addnl. DNA fragment. It is flanked by inverted repeats identical to those of Tn5501 and the addnl. fragment is sepd. from the Tn5501 portion by an internal repeat (identical to the left terminal repeat). Transposition of phenol degrdn. genes could not be detected. Anal. of sequence data revealed that the *phl* genes are not located on a Tn5501-like transposon.

# IT 220140-39-6

RL: BOC (Biological occurrence); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)

(amino acid sequence; transposable elements resident on the plasmids of *Pseudomonas putida* strain H, Tn5501 and Tn5502, are cryptic transposons of the Tn3 family)

REFERENCE COUNT: 20

REFERENCE(S): (1) Allmeier, H; Gene 1992, V111, P11 CAPLUS  
(3) Gay, P; J Bacteriol 1985, V164, P918 CAPLUS  
(4) Herrmann, H; FEMS Microbiol Lett 1987, V43, P133 CAPLUS  
(5) Herrmann, H; Mol Gen Genet 1988, V214, P173 CAPLUS  
(6) Herrmann, H; Mol Gen Genet 1995, V247, P240 CAPLUS  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:394053 CAPLUS

DOCUMENT NUMBER: 129:94523

TITLE: Recombinant preparation of carotenoids using enzymes from *Flavobacterium* or gram-negative bacteria strain E-396 for feed or food industries

INVENTOR(S): Pasamontes, Luis; Tosigonkov, Juri

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10155497	A2	19980616	JP 1997-348653	19971202
EP 872554	A2	19981021	EP 1997-120324	19971120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9705676	A	19990525	BR 1997-5676	19971201
CN 1184159	A	19980610	CN 1997-122604	19971202
PRIORITY APPLN. INFO.:			EP 1996-810839	19961202

AB Disclosed is a method for industrial-scale prodn. of carotenoids by expression of the *Flavobacterium* strain R1534- or gram-neg. bacteria strain E-396-derived genes that are assocd. with the carotenoids-biosynthesis in a transgenic host such as *Escherichia coli* or *Bacillus subtilis*. The genes involved are *crtE* (for geranylgeranyl pyrophosphate synthetase), *crtB* (phytoene synthetase), *crtI* (phytoene desaturase), *crtY* (lycopene cyclase), all from *Flavobacterium* strain R1534, and *crtZE396* (.beta.-carotene oxygenase) from gram-neg. bacteria strain E-396. Gene *crtW* encoding .beta.-carotene .beta.4-oxygenase of *Alcaligenes* strain PC-1 may also be used to improve the carotenoids prodn. Methods for fermn. prodn. of cantaxanthin, astaxanthin, adonixanthin, and zeaxanthin are claimed. Methods using genes *crtEE396*, *crtBE396*, *crtIE396*, *crtYE396*, *crtZE396*, and *crtWE396*, all from gram-neg. bacteria strain E-396, also  
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claimed. Use of carotenoids as food or feed additives is also claimed.

IT **209540-17-0 209540-18-1**

RL: BOC (Biological occurrence); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)

(nucleotide sequence; recombinant prepn. of carotenoids using Flavobacterium or gram-neg. bacteria strain E-396 genes for feed or food industries)

L2 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:296873 CAPLUS

DOCUMENT NUMBER: 129:63855

TITLE: The 172 kb prkA-addAB region from 83.degree. to 97.degree. of the Bacillus subtilis chromosome contains several dysfunctional genes, the glyB marker, many genes encoding transporter proteins, and the ubiquitous hit gene

AUTHOR(S): Noback, Michiel A.; Holsappel, Siger; Kiewiet, Rense; Terpstra, Peter; Wambutt, Rolf; Wedler, Holger; Venema, Gerard; Bron, Sierd

CORPORATE SOURCE: Department of Genetics, Groningen Biomolecular Sciences and Biotechnology Institute (GBB), University of Groningen, Haren, 9751 NN, Neth.

SOURCE: Microbiology (Reading, U. K.) (1998), 144(4), 859-875  
CODEN: MROBEO; ISSN: 1350-0872

PUBLISHER: Society for General Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A 171812 bp nucleotide sequence between prkA and addAB (83.degree. to 97.degree.) on the genetic map of the Bacillus subtilis 168 chromosome was detd. and analyzed. An accurate phys./genetic map of this previously poorly described chromosomal region was constructed. One hundred and seventy open reading frames (ORFs) were identified on this DNA fragment. These include the previously described genes cspB, glpPFKD, spoVR, phoAIV, papQ, citRA, sspB, prsA, hpr, pbpF, hemeHY, aprE, comK and addAB. ORF yhaF in this region corresponds to the glyB marker. Among the striking features of this region are: an abundance of genes encoding (putative) transporter proteins, several dysfunctional genes, the ubiquitous hit gene, and five multidrug-resistance-like genes. These analyses have also revealed the existence of numerous paralogs of ORFs in this region: about two-thirds of the putative genes seem to have at least one paralogue in the B. subtilis genome.

IT **201880-53-7**, Protein (Bacillus subtilis gene yhjQ)

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; of 172 kb prkA-addAB region from 83-97.degree. of Bacillus subtilis chromosome)

L2 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1997:748948 CAPLUS

DOCUMENT NUMBER: 128:150233

TITLE: The complete genome sequence of the gram-positive bacterium Bacillus subtilis

AUTHOR(S): Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A. M.; Alloni, G.; Azevedo, V.; Bertero, M. G.; Bessieres, P.; Bolotin, A.; Borchert, S.; Borriss, R.; Boursier, L.; Brans, A.; Braun, M.; Brignell, S. C.; Bron, S.; Brouillet, S.; Bruschi, C. V.; Caldwell, B.; Capuano, V.; Carter, N. M.; Choi, S.-K.; Codani, J.-J.; Connerton, I. F.; Cummings, N. J.; Daniel, R. A.; Denizot, F.; Devine, K. M.; Dusterhoft, A.; Ehrlich, S. D.; Emmerson, P. T.; Entian, K. D.; Errington, J.; Fabret, C.; Ferrari, E.; Foulger, D.;  
Searched by Barb O'Bryen

Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galleron, N.; Ghim, S.-Y.; Glaser, P.; Goffeau, A.; Golightly, E. J.; Grandi, G.; Guiseppe, G.; Guy, B. J.; Haga, K.; et al.

CORPORATE SOURCE: Unite de Biochemie Microbienne, Inst. Pasteur, Paris, 75724, Fr.

SOURCE: Nature (London) (1997), 390(6657), 249-256  
CODEN: NATUAS; ISSN: 0028-0836

PUBLISHER: Macmillan Magazines

DOCUMENT TYPE: Journal

LANGUAGE: English

AB *Bacillus subtilis* is the best-characterized member of the gram-pos. bacteria. Its genome of 4,214,810 base pairs comprises 4100 protein-coding genes. Of these protein-coding genes, 53% are represented once, while a quarter of the genome corresponds to several gene families that have been greatly expanded by gene duplication, the largest family contg. 77 putative ATP-binding transport proteins. In addn., a large proportion of the genetic capacity is devoted to the utilization of a variety of carbon sources, including many plant-derived mols. The identification of 5 signal peptidase genes, as well as several genes for components of the secretion app., is important given the capacity of *Bacillus* strains to secrete large amts. of industrially important enzymes. Many of the genes are involved in the synthesis of secondary metabolites, including antibiotics, that are more typically assocd. with *Streptomyces* species. The genome contains .gtoreq.10 prophages or remnants of prophages, indicating that bacteriophage infection has played an important evolutionary role in horizontal gene transfer, in particular in the propagation of bacterial pathogenesis.

IT 201880-53-7, Protein (*Bacillus subtilis* gene yhjQ)  
RL: PRP (Properties)  
(amino acid sequence; complete genome sequence of *Bacillus subtilis*)

L2 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1997:634275 CAPLUS

DOCUMENT NUMBER: 127:327167

TITLE: Conservation of the H-2 Bf1 binding motif 5' of the H-2Ds, Ks and Dq genes

AUTHOR(S): Brown, G. D.; Morris, D. R.; Meruelo, D.

CORPORATE SOURCE: Department of Pathology and Kaplan Cancer Centre, New York University Medical Centre, New York, NY, USA

SOURCE: Eur. J. Immunogenet. (1997), 24(4), 241-257  
CODEN: EJOIE3; ISSN: 0960-7420

PUBLISHER: Blackwell

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The biol. consequences of radiation leukemia virus (RadLV) infection include the stimulation of H-2 antigen expression soon after injection of the virus. Early studies demonstrated that resistance to RadLV-induced leukemia in certain mouse strains is mediated by genes in the H-2D region of the major histocompatibility complex (MHC). Recent studies have shown that elevated H-2D regions of the major histocompatibility complex (MHC). Recent studies have shown that elevated H-2Dd expression on the thymocyte cell surface of resistant mouse strains results from increased mRNA transcription and is correlated with elevated levels of a DNA-binding activity that recognizes a short DNA sequence 5' of the start of transcription for the H-2Dd gene. This binding activity has been termed H-2 binding factor 1 (H-2 Bf1) and is found exclusively in the thymus. In an effort to examine the H-2 genes of RadLV-susceptible mice for the presence of the H-2 Bf1 binding target, we have clones class I genes from the highly susceptible B10.S mouse strain and have identified both the Ds and the Ks genes. The entire genomic sequence for the Ds gene has been detd. and is reported here. In addn., the 5' regulatory region of the

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previously cloned Dq gene has been sequenced; mice of the Dq haplotype are also susceptible to RadLV-induced leukemia. In this report, we show that the H-2 Bf1 DNA binding sequence is present 5' of each of these three class I genes.

IT 197981-22-9

RL: PRP (Properties)

(nucleotide sequence; conservation of the H-2 Bf1 binding motif 5' of the H-2Ds, Ks and Dq genes)

L2 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1997:212344 CAPLUS

DOCUMENT NUMBER: 126:273049

TITLE: Molecular cloning and sequence analysis of a gene encoding rice proteinase inhibitor

AUTHOR(S): Xie, Ming; Chen, Xin; Qu, Lijia; Liu, Hong; Gu, Hongya; Chen, Zhanliang

CORPORATE SOURCE: State Key Lab. Protein Engineering & Plant Genetic Engineering, Beijing Univ., Beijing, 100871, Peop. Rep. China

SOURCE: Zhiwu Xuebao (1996), 38(6), 444-450

CODEN: CHWHAY; ISSN: 0577-7496

PUBLISHER: Kexue

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB With the primers designed basing on the terminal amino acid sequences of rice proteinase inhibitor and the preferred codons of rice genes, a new gene coding for a rice proteinase inhibitor was amplified and cloned from *Oryza sativa* var. japonica (cv. Zhonghua 8) using PCR technique. The gene contains 408 base-pairs and encodes 133 amino acid residues. The deduced amino acid sequence showed duplicated Bowman-Birk type structure and active sites specific to trypsin, and it has relatively high homol. with those of proteinase inhibitors from wheat and bean. The new gene (RBBI) shares 74.8% homol. with a rice bran trypsin inhibitor reported previously. The evolutionary characteristics of the proteinase inhibitor family was also discussed.

IT 188900-56-3

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)

(nucleotide sequence; cloning and sequencing of rice Bowman-Birk proteinase inhibitor gene RBBI)

L2 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1996:726575 CAPLUS

DOCUMENT NUMBER: 126:56496

TITLE: Primary structures of decapod crustacean metallothioneins with special emphasis on freshwater and semi-terrestrial species

AUTHOR(S): Pedersen, Soeren N.; Pedersen, Knud L.; Hoejrup, Peter; Depledge, Michael H.; Knudsen, Jens

CORPORATE SOURCE: Inst. Biol., Odense Univ., Odense, DK-5230, Den.

SOURCE: Biochem. J. (1996), 319(3), 999-1003

CODEN: BIJOAK; ISSN: 0264-6021

PUBLISHER: Portland Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cadmium injections induced only a single form of metallothionein (MT) in the midgut gland of *Potamon potamios*, whereas the same treatment induced two isoforms in *Astacus astacus*. The only difference between the two latter isoforms was that one had an extra N-terminal methionine residue. MT from *P. potamios* showed structural differences from other decapod crustacean MTs. It contained a Gly-Thr motif at positions 8 and 8a, which had previously been found only in certain vertebrate and molluscan MTs.

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Furthermore, *P. potamios* MT contained two to three times as many glutamic acid residues as normally found in decapod crustacean MT. The primary structure of MT from the freshwater crayfish *A. astacus* showed a high degree of sequence identity with MT from other decapod crustaceans, esp. the marine astacidean *Homarus americanus*; although, two valine residues were unexpectedly found at positions 8 and 21, where lysine residues are normally found.

IT 185226-97-5, Metallothionein 1a (*Astacus astacus*)

185226-98-6, Metallothionein 1 (*Potamon potamios*)

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence of; primary structures of freshwater (*Astacus astacus*) and semi-terrestrial (*Potamon potamios*) decapod crustacean metallothioneins)

L2 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1995:883450 CAPLUS

DOCUMENT NUMBER: 124:48559

TITLE: Primary structure and tissue-specific expression of blue crab (*Callinectes sapidus*) metallothionein isoforms

AUTHOR(S): Brouwer, Marius; Enghild, Jan; Hoexum-Brouwer, Thea; Thogersen, Ida; Truncali, Andrea

CORPORATE SOURCE: Marine Biomedical Center, Duke Univ. Sch. Environment Marine Lab., Beaufort, NC, 28516, USA

SOURCE: Biochem. J. (1995), 311(2), 617-22  
CODEN: BIJOAK; ISSN: 0264-6021

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In aquatic animals, synthesis of the metal-binding protein metallothionein (MT) can be induced through exposure to elevated levels of metals in food or water. Whether the different routes of exposure lead to expression of different metallothionein isoforms in different tissues is unknown. In this study the authors examd. the induction of metallothionein isoforms in the hepatopancreas and gills of the blue crab *Callinectes sapidus*. When blue crabs are exposed to cadmium in their diet, the metal accumulates in the hepatopancreas. Size-exclusion and anion-exchange chromatog. show the presence of five low-mol.-mass cadmium-binding proteins. All of the obsd. cadmium-binding proteins belong to the class I MT family. They are designated as MT-Ia, MT-Ib, MT-Ic, MT-IIa and MT-IIb. All purified proteins run as single peaks upon rechromatog. on anion-exchange HPLC, except for MT-Ic, which segregates into two peaks corresponding to MT-Ia and MT-Ic. The amino acid sequence of MT-Ia and MT-Ic is identical. MT-Ib differs from MT-Ia and MT-Ic only in having an extra N-terminal methionine. The 18 cysteine residues in MT-Ia and MT-IIa occur in identical positions; however, of the remaining 40 amino acids, 15 are different. MT-IIb is identical with MT-IIa, except for an extra methionine residue at its N-terminal position. It appears therefore that, of the five obsd. CdMTs, only two are the products of distinct genes. CdMT-Ia and -IIa are post-translationally modified forms of Ib and IIb, resp., and CdMT-Ia and -Ic appear to be conformational isomers. Cadmium-induced expression of the two genes is tissue-specific. When crabs are exposed to cadmium in the water, the metal accumulates in the gills, where it is bound to MT-II. MT-I is virtually absent.

IT 171902-68-4 171902-70-8 171902-71-9

171902-73-1

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; primary structure and tissue-specific expression of blue crab (*Callinectes sapidus*) metallothionein isoforms)

L2 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2000 ACS

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ACCESSION NUMBER: 1994:528180 CAPLUS  
DOCUMENT NUMBER: 121:128180  
TITLE: Sequential Proton Resonance Assignments and Metal  
Cluster Topology of Lobster Metallothionein-1  
AUTHOR(S): Zhu, Zhiwu; DeRose, Eugene F.; Mullen, Gregory P.;  
Petering, David H.; Shaw, C. Frank, III  
CORPORATE SOURCE: Department of Chemistry, University of Wisconsin,  
Milwaukee, WI, 53211, USA  
SOURCE: Biochemistry (1994), 33(30), 8858-65  
CODEN: BICHAW; ISSN: 0006-2960  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB NMR studies of 111Cd6-MT 1 from lobster have been conducted to det.  
coordination structure of Cd-thiolate binding in the protein. Sequential  
proton resonance assignments were made using std. two-dimensional 1H NMR  
methods. Two-dimensional 1H-111Cd HMQC expts. were then carried out to  
det. the cadmium-cysteine connectivities in the protein. With this  
information, it was established that the six Cd ions exist in two  
different Cd3S9 clusters, each involving three bridging and six terminal  
thiolate ligands. Sequential cysteines in the sequence provide the  
sulfhydralligands for each cluster and do not overlap, as has been found  
in mammalian metallothionein. Comparison of the N-terminal, Cd3S9 B-type  
cluster of lobster MT 1 with the Cd3S9 cluster from rabbit MT 2 shows that  
while eight of the nine cysteine residues occupy homologous positions in  
their sequences, three of the 12 Cd-thiolate connectivities are different.  
Similarly, the C-terminal B-cluster of lobster MT 1 was compared with the  
Cd4S11 cluster of mammalian MT 2, excluding the two terminal cysteine  
sulfhydryl groups that convert this cluster from A- to B-type. As above,  
eight of nine cysteine positions are identical, yet five of 12  
Cd-sulfhydryl connections are different. These differences are expanded  
when the role of each cysteine as bridging or terminal ligands in the  
clusters is considered.

IT 157184-67-3  
RL: RCT (Reactant)  
(cadmium coordination by, NMR study of)

L2 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1993:1730 CAPLUS  
DOCUMENT NUMBER: 118:1730  
TITLE: A cluster of four genes selectively expressed in the  
male germ line of Drosophila melanogaster  
AUTHOR(S): Kuhn, Rainer; Kuhn, Claudia; Boersch, Dagmar;  
Glaetzer, Karl Heinz; Schaefer, Ulrich; Schaefer,  
Mireille  
CORPORATE SOURCE: Inst. Genet., Heinrich-Heine-Univ., Duesseldorf,  
4000/1, Germany  
SOURCE: Mech. Dev. (1991), 35(2), 143-51  
CODEN: MEDVE6; ISSN: 0925-4773  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The gene Mst87F is exclusively expressed in the male germ line and is  
subject to translational regulation. The Mst87F mRNA is transcribed in  
the primary spermatocytes, stored for 3 days and then subsequently  
translated in the post-elongation period of spermiogenesis. Here the  
isolation of a cluster of 4 small genes closely related in structure and  
function to Mst87F is reported. These genes are located at polytene band  
84D on the right arm of chromosome and are named Mst84Da, Mst84Db, Mst84Dc  
and Mst84Dd. All 4 genes encode putative proteins composed primarily of a  
repetitive motif of cysteine-glycine-proline. The genes are exclusively  
expressed in the male germ line. The poly(A) tail of the Mst84D mRNAs  
increases in length at day 3 of pupal development, the time at which a  
similar change in Mst87F mRNA and translation has been shown to begin. In  
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addn. a conserved 12 base pair element was identified within the 5' untranslated region (UTR) of each gene which is also found at an identical position in Mst87F and which has been demonstrated to be the structural element for translational control of Mst87F expression (Schaefer, U., et al., 1990). The gene cluster was mapped to a small deletion assocd. with a rotund mutation at 84D. Although flies with a homozygous deletion of the cluster still produce motile sperm, electron microscopic examn. revealed numerous malformations in the ultrastructure of the axoneme resulting in a drastic redn. of motile sperm.

IT **144905-07-7**, Protein (Drosophila melanogaster gene Mst84Db reduced) **144905-09-9**, Protein (Drosophila melanogaster gene Mst84Dc reduced) **144905-11-3**, Protein (Drosophila melanogaster gene Mst84Dd reduced)  
 RL: BAC (Biological activity or effector, except adverse); PRP (Properties); BIOL (Biological study)  
 (amino acid sequence of, complete)

L2 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1988:449380 CAPLUS  
 DOCUMENT NUMBER: 109:49380  
 TITLE: Cis-acting regions sufficient for spermatocyte-specific transcriptional and spermatid-specific translational control of the Drosophila melanogaster gene mst(3)gl-9  
 AUTHOR(S): Kuhn, Rainer; Schaefer, Ulrich; Schaefer, Mireille  
 CORPORATE SOURCE: Inst. Genet., Univ. Duesseldorf, Duesseldorf, D-4000, Fed. Rep. Ger.  
 SOURCE: EMBO J. (1988), 7(2), 447-54  
 CODEN: EMJODG; ISSN: 0261-4189  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB In Drosophila spermatogenesis, transcription occurs only premeiotically while translation can be detected also in postmeiotic spermatids. To analyze the underlying processes, mst(3)gl-9, a gene specifically expressed in the male germ cells of D. melanogaster, was studied. The putative protein encoded by mst(3)gl-9 is mostly composed of repetitive Cys-Gly-Pro motifs. The transcriptional and translational control of expression of mst(3)gl-9 was investigated by P-mediated transformation. Only 102 bp of 5' upstream sequences and the first 201 bp of the gene are sufficient to maintain the gene-specific characteristics of expression, namely premeiotic transcription and postmeiotic translation sepd. by 3 days of development.

IT **114265-51-9**, Protein (Drosophila melanogaster gene mst(3)gl-9 reduced)  
 RL: PRP (Properties)  
 (amino acid sequence of)

L2 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1986:585048 CAPLUS  
 DOCUMENT NUMBER: 105:185048  
 TITLE: The silkmoth late chorion locus. I. Variation within two paired multigene families  
 AUTHOR(S): Burke, William D.; Eickbush, Thomas H.  
 CORPORATE SOURCE: Dep. Biol., Univ. Rochester, Rochester, NY, 14627, USA  
 SOURCE: J. Mol. Biol. (1986), 190(3), 343-56  
 CODEN: JMOBAK; ISSN: 0022-2836  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The 140 .times. 103 base late chorion locus of B. mori contains two 15-member multigene families arranged in tightly linked pairs, which are divergently transcribed (the high-cysteine A (HcA) and the high-cysteine B (HcB) families). Previous DNA hybridization expts. have indicated that  
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all members of these gene families contain a complex pattern of shared sequence variation. The sequence anal. in this paper involving all 15 gene pairs allows a comprehensive examn. of the nature of this variation. Av. sequence homol. between gene pairs is: 95% for the protein-encoding regions; 93% for the common 272-base-pair 5' flanking region; 87% for the introns; and 88% for the 3' untranslated regions. Considering the great degree of sequence homol. in the coding regions, an unexpectedly high level of variation is found in the deduced protein sequences. Over 50% of the nucleotide substitutions in the protein-encoding regions lead to amino acid replacements, most of which involve a change in charge or effect the secondary structure of the protein. In addn., significant differences in length between the proteins occur in the C-terminal arm. In both families, the major portion of this arm is composed of Cys-Gly-Gly and Cys-Gly subrepeats forming a (Cys-Gly-Gly)<sub>2</sub>-(Cys-Gly)<sub>2</sub> major repeat. Differences in the no. of complete and partial repeats results in deduced protein sequences that contain arms varying from 32 to 54 amino acid residues for members of the HcA family and 14 to 88 residues for the HcB family. The high level of variation in protein compn. indicates a lack of strong selective pressure. The high level of DNA sequence homol. maintained by these genes in the coding as well as in the noncoding regions is apparently the result of sequence exchange between family members.

IT 104950-50-7 104950-53-0 104950-55-2  
104950-59-6 104950-60-9 104950-67-6  
RL: PRP (Properties)  
(amino acid sequence of)

L2 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2000 ACS  
ACCESSION NUMBER: 1982:157702 CAPLUS  
DOCUMENT NUMBER: 96:157702  
TITLE: Crab metallothionein. Primary structures of  
metallothioneins 1 and 2  
AUTHOR(S): Lerch, Konrad; Ammer, Doris; Olafson, Robert W.  
CORPORATE SOURCE: Biochem. Inst., Univ. Zurich, Zurich, CH-8028, Switz.  
SOURCE: J. Biol. Chem. (1982), 257(5), 2420-6  
CODEN: JBCHA3; ISSN: 0021-9258  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The complete amino acid sequences of metallothioneins 1 and 2 from the crab *Scylla serrata* are reported. The primary structures were detd. by automated and manual sequence anal. on fragments produced by cleavage of the S-pyridylethylated, S-aminoethylated, and S-carbamidomethylated proteins with trypsin. The 2 isoproteins consist of 58 and 57 amino acid residues, resp., and show a sequence identity of 83%. Comparison of their primary structures with the known sequences of 3 representative mammalian metallothioneins and *Neurospora* Cu-metallothionein reveals a high degree of sequence homol. among the 6 proteins. The abundant cysteinyl residues were strongly conserved, in agreement with their function as metal ligands.

IT 78213-76-0 81458-84-6  
RL: PRP (Properties)  
(amino acid sequence of)

L2 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2000 ACS  
ACCESSION NUMBER: 1981:437508 CAPLUS  
DOCUMENT NUMBER: 95:37508  
TITLE: Amino acid sequence of crab metallothionein  
AUTHOR(S): Lerch, K.; Ammer, D.; Olafson, R. W.  
CORPORATE SOURCE: Biochem. Inst., Univ. Zurich, Zurich, CH-8028, Switz.  
SOURCE: FEBS Lett. (1981), 126(2), 165-8  
CODEN: FEBLAL; ISSN: 0014-5793  
DOCUMENT TYPE: Journal  
Searched by Barb O'Bryen

LANGUAGE: English

AB The amino acid sequence of metallothionein (I) isoprotein MT-1 from the crab, *Scylla serrata*, is reported and compared with the primary structures of human and mouse I and of Cu-I of *Neurospora crassa*. Crab I contained 58 amino acids, only slightly smaller than the value of 61 typically found for sequenced mammalian I. In contrast to the vertebrate I proteins sequenced so far, crab I displayed a free N-terminus. There were a smaller no. of cysteine residues (18) in crab I vs. 20 in the mammalian forms. The spatial distribution of these cysteine residues, the principal metal-binding ligands in I, was also preserved in crab I; 5 Cys-X-Cys sequences in crab I vs. 7 Cys-X-Cys sequences in mammalian I. A comparison of aligned residues of crab I MT-1 with human MT-2 showed 46% identity in sequence and 48% homol. on considering arginine as a conservative replacement for lysine. There was a rigid sequence conservation between residues 21-31, suggesting a fundamental structure-function importance to this stretch. In contrast, the amino acid sequence of *Neurospora* I was highly altered in this region which may be related to the fact that *Neurospora* I binds Cu.

IT 78213-76-0

RL: PRP (Properties)  
(amino acid sequence of)

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